

ABSTRACT

Disclosed is a signal processing method for an FM-CW radar that can accurately detect the relative distance,  
5 relative velocity, etc. with respect to a target  
approaching or receding at a high relative velocity,  
wherein predicted values for peak frequencies currently  
detected in upsweep and downsweep sections are computed  
10 from the previously detected relative distance and  
relative velocity, and it is determined whether any of  
the predicted values exceeds a detection frequency range  
and, if there is a peak frequency that exceeds the  
detection frequency range, the frequency is folded and  
the folded frequency is taken as one of the predicted  
15 values, the method then proceeding to search the  
currently detected peak frequencies to determine whether  
there are upsweep and downsweep peak frequencies  
approximately equal to the predicted values and, if such  
upsweep and downsweep peak frequency are found, the peak  
20 frequency approximately equal to the folded predicted  
value is folded and the folded peak frequency is used.